

**DRAFT**  
**FINDING OF NO SIGNIFICANT IMPACT**

**1.0 NAME OF PROPOSED ACTION.** Predator Force Structure Changes at Indian Springs Air Force Auxiliary Field (ISAFAF), Nevada.

**2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES.** The United States Air Force (Air Force), Air Combat Command and the 99<sup>th</sup> Air Base Wing propose to beddown Predator medium altitude MQ-1 units and Predator high altitude MQ-9 units at ISAFAF. The proposed beddown would involve adding up to approximately 50 Predator unmanned aerial vehicles (UAVs) to the approximately 40 Predators currently assigned to ISAFAF, extending Runway 13/31 by 400 feet, assigning required personnel, upgrading existing facilities, and constructing new facilities.

Three beddown alternatives are considered in this EA. Alternative A consists of the 11<sup>th</sup> Reconnaissance Squadron (11 RS), the 15 RS, the 17 RS, and the 53<sup>rd</sup> Wing Force Development Evaluation (FDE) and the MQ-1 Field Training Unit (FTU) as separate units with their own aircraft. The total aircraft under Alternative A would be approximately 76 aircraft. Approximately 30 construction projects, including the 400-foot extension of Runway 13/31 at ISAFAF and new munitions support structures at Nellis Air Force Base are proposed for the beddown action under either Alternative A or Alternative B. Alternative B includes all the assets and construction of Alternative A and adds an MQ-9 FTU with 12 MQ-9 aircraft and associated support systems. Alternative B would have approximately 88 aircraft. Alternative C consists of the 17 RS, an FDE with MQ-1 and MQ-9 assets, and an FTU with MQ-1 and MQ-9 assets, for a total of approximately 48 aircraft. Seven ISAFAF construction projects, including the extension of Runway 13/31, would be included under Alternative C.

The No-Action Alternative would continue to beddown approximately 40 Predators at ISAFAF. Under the No-Action Alternative no decision to beddown additional Predator MQ-1 and MQ-9 assets at ISAFAF would be made at this time.

**3.0 SUMMARY OF ENVIRONMENTAL CONSEQUENCES.** The Environmental Assessment (EA) provides an analysis of the potential environmental consequences associated with an additional Predator beddown at ISAFAF. Environmental consequences of Alternative A, Alternative B, Alternative C, and the No-Action Alternative were evaluated for potentially affected environmental resources. The No-Action Alternative results in no changed environmental effects but has the potential to impact the Congressional direction to rapidly field Predator assets.

The EA finds that the proposed beddown of additional Predator aircraft, the construction of associated new and upgraded facilities, and the additional airspace activity would not result in significant impacts for any environmental resource area. The following summarizes the findings of the analyses:

**Airspace Management and Use.** Predator sorties under Alternatives A and B would increase daily use of airspace within the Nellis Test and Training Range (NTTR) by approximately 45 to 63 flight hours. Use of the R-2508 Range Complex in California would increase by approximately 15 flight hours per day. These sorties would be scheduled with airspace

managers and integrated into flight priorities. Alternative C would have no noticeable effect on airspace management and use.

**Safety.** Predator Class A mishap rates are consistent with other new weapon systems and with the Predator, do not place pilots at risk. Ground safety, explosive safety, and flight safety issues were assessed and found to be adequately protected. The increased storage and shipment of Hellfire missiles from 50 to 140 under Alternative A or Alternative B or from 50 to 100 for Alternative C (no increased storage) would follow existing operational requirements and procedures. The runway extension and operational limitations on Runway 13/31 would serve to protect public safety.

**Noise.** The maximum increase in Day-Night Average Sound Level (DNL) noise under any beddown alternative would be less than 1 dB, an indiscernible increase.

**Air Quality.** Annual operational emissions under Alternative A or Alternative B would be 38.2 or 49.5 tons per year (tpy) of NO<sub>x</sub> and less than 4 tpy of PM<sub>10</sub>. Construction PM<sub>10</sub> could be approximately 61 tpy for four years. All emissions would be within regulatory limits. Short-term construction emissions under Alternative C would be approximately one-half of those for Alternative A or Alternative B, and long-term emissions under Alternative C would be less than the No Action Alternative.

**Water and Soils.** Construction of facilities would not substantially alter existing topography, and would not be located within a floodplain. Alternative A or Alternative B would increase water usage at ISAFAF from 98.6 acre feet per year (AFY) to approximately 110 AFY. This is within state water allocated resources. Alternative C would reduce water usage below the No Action Alternative.

**Biological Resources.** Procedures to avoid potential impacts on the desert tortoise or burrowing owl would be incorporated into construction planning. No other species of special concern are likely to be affected. Alternative C disturbs one-third the area of Alternative A or Alternative B. Alternative C has no construction at Nellis AFB.

**Cultural Resources.** Recent surveys have recorded no significant archeological, historical, or traditional resources within the area potentially affected by construction of new facilities under any beddown alternative.

**Visual Resources.** Alternative A or Alternative B would have new construction to the northeast of the current ISAFAF built-up area and would be noticeable from off base. New construction would be consistent with context, location, and scale of other base structures. Alternative C is within the ISAFAF cantonment area and would have no visual effects.

**Land Use.** Alternative A and Alternative B new construction would be outside the current built-up area and would be consistent with ISAFAF General Plan and other planning policies and guidelines. Alternative C actions would be within existing built-up areas and would be consistent with ISAFAF land uses.

**Socioeconomics.** Alternative A increases peak year employment by 765 jobs and Alternative B by 859 jobs. The resulting total peak demand from population for housing and schools would be about 2 percent of the current monthly growth in the Las Vegas area. Alternative C reduces ISAFAF employment by approximately 560 jobs. The consequences of the small beneficial impact from Alternative A or Alternative B or the small negative impact from Alternative C are not likely to be discerned in the dynamic Las Vegas economic area.

**Environmental Justice.** The beddown and military training of Predator assets would not create environmental justice impacts on the nearby community of Indian Springs or in the Las Vegas area.

**Infrastructure.** Fire protection at ISAFAP would be improved under Alternative A or Alternative B. The water supply system is sufficient to meet the needs of additional personnel. The communication, wastewater, and electrical systems would be improved under Alternative A or Alternative B. Alternative C does not include these infrastructure improvements.

**Transportation.** Commuter traffic on U.S. 95 would increase by 8.7 percent under Alternative A or 12.3 percent under Alternative B but would not degrade the level of service due to the excess capacity available on the highway. Alternative C would reduce peak hour traffic by approximately 50 percent.

**Hazardous Materials and Waste.** Implementation of a beddown alternative would involve use of additional hazardous materials and the generation of hazardous waste. The existing 90-day hazardous waste Central Accumulation Site could accommodate these increases. Under Alternative A or Alternative B, one Environmental Restoration Program (ERP) site (landfill LF-02) would be partially located under a planned parking lot northeast of runway 13/31. The Air Force has obtained an ERP waiver for site LF-02, which would allow the proposed construction. Placement of the parking lot over part of the historic landfill would not affect long-term monitoring. LF-02 would not impair parking lot construction or use. Alternative C does not include any substantial change in hazardous materials or waste and does not construct the parking lot.

**4.0 CONCLUSION.** Based on the findings of the EA conducted in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations, and Air Force Instruction (AFI) 32-7061, and after careful review of the potential impacts, I conclude that implementation of the proposed beddown action under any of the alternatives would not result in significant impacts on the quality of the human or the natural environment. Therefore, a Finding of No Significant Impact (FONSI) is warranted, and an Environmental Impact Statement (EIS) is not required for this action.

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Robert C. Barrett  
Chief, Environmental Division

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Date

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# Draft Environmental Assessment

## Predator Force Structure Changes at Indian Springs Air Force Auxiliary Field Nevada

United States Air Force  
Air Combat Command

May 2003

Public comments on this Draft Environmental Assessment (EA) are requested. All written comments received during the comment period will be considered during Final EA preparation. Private address information provided with your comment will be used solely to develop a mailing list for Final EA distribution and will not otherwise be released.



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## **EXECUTIVE SUMMARY**

This Environmental Assessment (EA) describes the potential environmental consequences of proposed force structure changes at Indian Springs Air Force Auxiliary Field (ISAFAF), Nevada that would result in the beddown of Predator MQ-1 medium altitude Unmanned Aerial Vehicle (UAV) units and Predator MQ-9 high altitude assets. The MQ-1 and MQ-9 extend commanders' eyes in the battlespace and provide the ability to transition to a target engagement role when appropriate. The proponents of the action are the Air Combat Command (ACC) and the 99<sup>th</sup> Air Base Wing. Overall, the proposed beddown action would not result in any significant environmental impacts that would warrant preparation of an Environmental Impact Statement.

### **ENVIRONMENTAL IMPACT ANALYSIS PROCESS**

This EA has been prepared by the United States Air Force (Air Force) ACC and the 99<sup>th</sup> Air Base Wing (99 ABW) in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969; the Council on Environmental Quality (CEQ) regulations implementing NEPA; and Air Force Instruction 32-7061, Environmental Impact Analysis Process (EIAP) (32 CFR 989, et seq.).

### **PURPOSE AND NEED FOR ACTION**

The purpose of the proposed beddown is to add up to approximately 50 Predator UAVs to the approximately 40 Predators based at ISAFAF. The UAVs would fly in existing airspace in the Nevada Test and Training Range (NTTR) and nearby ranges currently used for Predator test, training, and weapons evaluation. The combination of new personnel with experienced personnel at ISAFAF provides for transfer of needed skills in response to the Secretary of the Air Force directive to rapidly field the Predator system.

The beddown of the Predator MQ-1 and MQ-9 UAV systems is needed to rapidly apply Predator tactical and strategic reconnaissance and weapons deployment capabilities to Air Force operational squadrons. The beddown of Force Development Evaluation (FDE), Field Training Units (FTU), and operational squadrons is needed to respond to the directives and funding from Congress. Predator development and training squadrons at ISAFAF have the ability to rapidly transition weapon system capabilities in intelligence collecting, targeting, and shooting roles to operational Predator squadrons.

### **PROPOSED ACTION AND ALTERNATIVES**

The proposed Predator beddown involves adding up to approximately 50 Predator UAVs to the approximately 40 Predators currently assigned to ISAFAF, changing personnel assignments, upgrading existing facilities, constructing new facilities, and extending Runway 13/31 by 400 feet. The MQ-1 and MQ-9 Predator aircraft provide a low cost, lethal capability to perform a variety of tactical missions augmenting existing Combat Air Forces (CAF) assets. At ISAFAF, the Predator would evolve as one element of a system of systems, seamlessly integrating manned and unmanned platforms on the ground, in the air, and in space.

Three beddown alternatives are considered in this EA. Alternative A consists of the 11<sup>th</sup> Reconnaissance Squadron (11 RS), the 15 RS, the 17 RS, and the 53<sup>rd</sup> Wing Test Force

Development Evaluation (FDE) and the MQ-1 Field Training Unit (FTU) as separate units with their own aircraft. Alternative A would increase ISAFAF assigned personnel by 101. The total aircraft under Alternative A would be approximately 76 aircraft. Approximately 30 construction projects including the 400-foot extension of Runway 13/31 and new munitions structures at Nellis Air Force Base are proposed for the beddown action under either Alternative A or Alternative B. Alternative B includes all the assets and construction of Alternative A and adds an MQ-9 FTU with 12 MQ-9 aircraft and associated support systems. Alternative B would have approximately 88 aircraft and would increase personnel by 143. Alternative C consists of the 17 RS, an FDE with MQ-1 and MQ-9 assets, and an FTU with MQ-1 and MQ-9 assets, for a total of approximately 48 aircraft. Alternative C reduces personnel by 560. Seven construction projects, including the 400-foot extension of Runway 13/31, would be included under Alternative C. Any new Predator beddown units would continue to fly in Nevada Test and Training Range (NTTR) airspace, including NTTR Military Operations Areas, and nearby ranges where existing ISAFAF Predators are flown.

Under the No-Action Alternative, no beddown decision would be made for the MQ-1 and MQ-9 squadrons at ISAFAF at this time. There would be no personnel changes or construction at ISAFAF, and no new Predator training activities would occur in the airspace. No action could negatively affect the overall program for weapons evaluation of the MQ-1 and MQ-9 aircraft and delay fielding the MQ-1 and MQ-9 for operations and deployment.

## **SUMMARY OF ENVIRONMENTAL CONSEQUENCES**

This EA provides an analysis of the potential environmental consequences associated with the additional Predator beddown at ISAFAF. As indicated in Chapter 4.0, the proposed beddown would not result in significant impacts for any environmental resource. The potential environmental impacts of the proposed beddown, based on the findings of the detailed impact analyses presented in Chapter 4.0, are summarized below.

**Airspace Management and Use.** Under Alternative A, annual Predator sorties in the NTTR airspace would increase from 1,080 to 2,988. This equates to an increase of approximately 7.5 Predator sorties per day or an additional 45 flight hours per day over current Predator operations. Predator sorties would occur over a 24-hour period, scheduled and integrated with other use of the airspace. Approximately 1 percent of sorties would be between 10 PM and 7 AM. Annual Predator sorties in the R-2508 Range Complex in California would increase from 174 to 960. This would increase operations from approximately 0.7 to 3.8 Predator sorties per day, or approximately an additional 15 flight hours per day. R-2508 sorties would be scheduled with airspace managers at Edwards AFB. Predator operations in public (Class A) airspace would increase by three out-and-back flights in remote areas as Predators transitioned between ISAFAF and R-2508. Predator sorties would not be in close proximity to other aviation activity. Alternative B would increase annual sorties to 3,720 within the NTTR for an additional 63 flight hours per day. Sorties within R-2508 would be the same as Alternative A. Alternative C has approximately 20 percent more sorties than the No Action Alternative and would have no noticeable effect upon airspace management or use in either R-4806 or R-2508.

**Safety.** Predator Class A mishap rates are consistent with other new weapon systems and with the Predator, do not place pilots at risk. Ground safety, explosive safety, and flight safety issues were assessed and found to be adequately protected by existing operational requirements and procedures. The increased use of Hellfire missiles from 50 to 140 (Alternative A or Alternative B) or to 100 (Alternative C) would require three to five additional munitions shipments between

Nellis AFB and ISAFAF consistent with existing procedures. The extension of Runway 13/31 and operational limitations (no munitions for south launches) would serve to protect public safety.

**Noise.** The maximum increase in day-night average sound level (DNL) noise under any beddown alternative would be less than 1 dB, an indiscernible increase.

**Air Quality.** Annual emissions under Alternative A or Alternative B would be 38.2 or 49.5 tons per year (tpy) of NO<sub>x</sub> and less than 4 tpy of PM<sub>10</sub>. Construction PM<sub>10</sub> could be approximately 61 tpy for four years. All emissions would be within regulatory limits. Short-term construction emissions under Alternative C would be approximately one-half of those for Alternative A or Alternative B, and long-term emissions under Alternative C would be less than the No Action Alternative.

**Water and Soils.** Construction of facilities would not substantially alter existing topography, and would not be located within a floodplain. Alternative A or Alternative B would increase water usage at ISAFAF from 98.6 acre feet per year (AFY) to approximately 110 AFY. This is within state allocated water resources. Alternative C would reduce water usage below the No Action Alternative.

**Biological Resources.** Procedures to avoid potential impacts on the desert tortoise or burrowing owl would be incorporated into construction planning. No other species of special concern are likely to be affected. Alternative C disturbs one-third the area of Alternative A or Alternative B. Alternative C has no construction at Nellis AFB.

**Cultural Resources.** ISAFAF was surveyed for archaeological and traditional resources in 1995, for World War II historic resources in 1988, and for Cold War historic resources in 1994. No significant archeological, historical, or traditional resources are recorded within the area proposed to be disturbed for construction of new facilities under any beddown alternative.

**Visual Resources.** The primary visual impacts of Alternative A or Alternative B would be the new construction to the northeast of the current ISAFAF built-up area. The largest new buildings would be the two hangars for 11 RS and 15 RS. They would be located a little over 1 mile away from Highway 95. The new construction at ISAFAF under Alternative A or Alternative B would be noticeable from off-base but would be consistent with context, location, and scale of other base structures. Alternative C buildings are within the ISAFAF cantonment area and would have no discernable visual effects.

**Land Use.** Beddown activities are consistent with the ISAFAF General Plan and other planning policies and guidelines. Proposed locations of Alternative A or Alternative B operations and maintenance facilities are in compliance with the Functional Relationships Analysis. Alternative C actions are within existing built-up areas. The proposed runway extension is consistent with surrounding land uses, including the Desert National Wildlife Range.

**Socioeconomics.** Peak year direct and indirect employment would increase by a total of 765 jobs with Alternative A, increase by 859 jobs with Alternative B, or decrease by 560 jobs with Alternative C. The total peak year employment associated with either Alternative A or Alternative B would be approximately 2 percent of the monthly growth in the Las Vegas area. The Alternative A or Alternative B job change would have a slightly beneficial effect, and the Alternative C job change would have a slightly negative effect on employment, population, housing, and education, but those effects would scarcely be detected in the Las Vegas area.

**Environmental Justice.** The beddown and military training of Predator assets would not create environmental justice or health or safety impacts on the community of Indian Springs or within the Las Vegas area.

**Infrastructure.** The current fire protection system at ISAFAP is degraded, and would be improved as part of Alternative A or Alternative B. Police and security at ISAFAP is sufficient to support the change in personnel. Existing communication systems are sufficient and would be extended to new facilities. The water supply system is sufficient to meet the needs of required personnel. The wastewater system would be improved as part of Alternative A or Alternative B with sewer lines extended to new facilities and system improvements made to increase capacity and efficiency. The infrastructure improvements associated with either Alternative A or B would not occur with Alternative C.

**Transportation.** Commuter traffic on U.S. 95 would increase by 8.7 percent under Alternative A or 12.3 percent under Alternative B; this would not degrade level of service due to excess capacity on the highway. The East Gate would be improved under either Alternative A or B. Alternative C would reduce the number of commuters by approximately 50 percent and have no gate improvements.

**Hazardous Materials and Waste.** Implementation of a beddown alternative would involve use of hazardous materials and the generation of hazardous waste. The existing 90-day hazardous waste Central Accumulation Site could accommodate the increases. Under Alternative A or Alternative B, one Environmental Restoration Program (ERP) site (landfill LF-02) would be partially located under a parking lot northeast of runway 13/31. The Air Force has obtained an ERP waiver (see Appendix C) for site LF-02, which would allow the proposed construction. Placement of the parking lot over part of site LF-02 would not affect long-term monitoring. LF-02 would not impair parking lot construction or use. Alternative C does not include any substantial change in hazardous materials or waste and does not include construction of the parking lot.

## **1.0 PURPOSE AND NEED**

### **1.1 INTRODUCTION**

The Predator Unmanned Aerial Vehicle (UAV) system was designed in response to a Department of Defense (DoD) requirement to provide continuous intelligence, surveillance, and reconnaissance information to the war fighter. The Predator provides the United States Air Force (Air Force) and other DoD Services with a medium- to high-altitude aerial vehicle capable of sustained operations in a hostile environment. The Predator UAV has been allowing tactical and strategic reconnaissance without jeopardizing aircrews in combat theaters since 1995. Since 1996, the RQ-1 Predator has been flown from Indian Springs Air Force Auxiliary Field (ISAFAF), Nevada, as part of the Nellis Air Force Base (AFB) weapons system evaluation mission. The Air Force proposes to locate or beddown approximately an additional 50 Predators to the current inventory of approximately 40 Predators at ISAFAF.

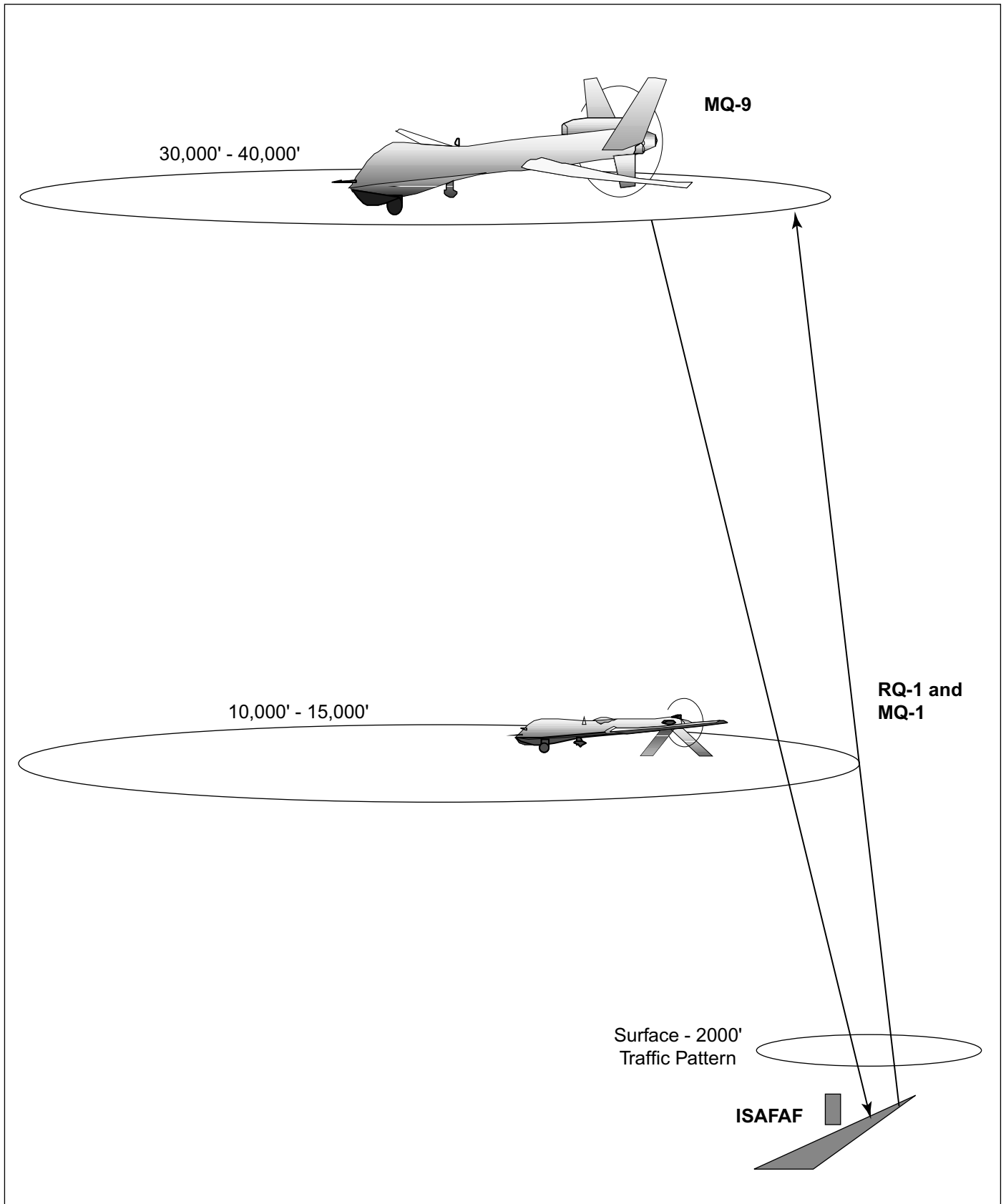
The Predator UAV is a developing weapons system that has demonstrated its value to United States and allied forces continuously in recent conflicts. The initial remotely operated RQ-1 combined the ability to remain over an assigned location, observe activities, and transmit needed high quality information. The additional Predators proposed for ISAFAF would be the next generations of Predators, the MQ-1 and MQ-9.

The appearance of the MQ-1 is very similar to the RQ-1. The MQ-1 is a 29-foot-long medium-altitude UAV that adds additional operational capabilities to the RQ-1. The MQ-9 is a 36-foot-long high altitude UAV with an increased payload and expanded operational capabilities. The intelligence gathering capabilities of the Predator system have been augmented by the ability of the Predator to achieve mission success with air-to-ground munitions. Predator payloads include visual, infrared, and radar sensors capable of detecting, targeting, and, with munitions, destroying hostile forces. Figure 1-1 illustrates the Predator UAVs, the relative sizes of the RQ-1/MQ-1 and MQ-9, and the typical operating altitudes of each UAV.

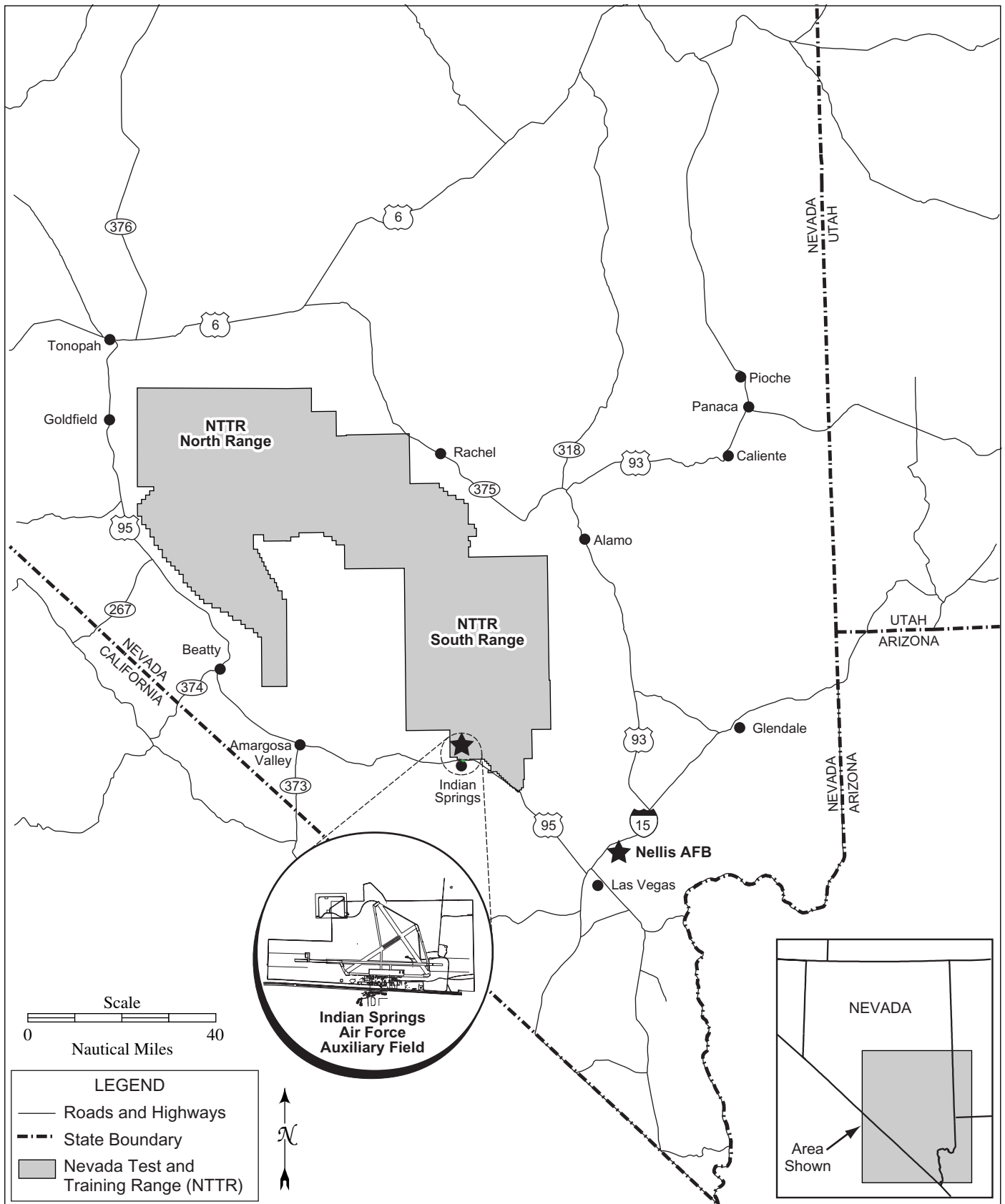
The beddown of additional Predators at ISAFAF would include assigning the necessary personnel, upgrading existing and constructing new facilities, and extending one runway. ISAFAF is located approximately 45 miles northwest of Las Vegas, Nevada, adjacent to U.S. Highway 95, and within the overall boundaries of the Nevada Test and Training Range (NTTR) as shown on Figure 1-2. The small community of Indian Springs is located on the south side of Highway 95, directly across from ISAFAF.

### **1.2 BACKGROUND**

The Secretary of the Air Force has directed Predator MQ-1 and MQ-9 development acceleration in Defense Emergency Relief Funds and has requested additional assets. Congress has funded additional assets via Program Budget Decision 736 and FY02 plus up. The Secretary of the Air Force for Acquisition has directed that the Predator be rapidly fielded. The MQ-1 is operational and the MQ-9 is expected to attain Initial Operational Capability by FY05. Predator UAV squadrons at ISAFAF currently support the 57<sup>th</sup> Wing (57 WG) Flying Operations, 99 ABW Security Forces Training, and 98 Range Wing (98 RANW) Southern Operations.



**Figure 1-1. Predator MQ-1 and MQ-9 Typical Operating Altitudes**



**Figure 1-2. Location of Indian Springs Air Force Auxiliary Field**

The three Predator squadrons currently assigned to ISAFAP are the 11th Reconnaissance Squadron (11 RS) with 20 Predator RQ-1 UAVs, the 15 RS with 20 Predator RQ-1 UAVs, and the 17 RS, which was activated at ISAFAP in March 2002 but with no assets. The 17 RS would receive its assets as part of the proposed action under all three beddown alternatives. The 11 RS and 15 RS perform Field Training Unit (FTU) and Force Development Evaluation (FDE) functions. The 11 RS, 15 RS, and 17 RS support the 57 WG, which reports to the Air Warfare Center (AWFC) located at Nellis AFB. Air Combat Command (ACC) is the force provider for the Predator UAV.

The MQ-1 is the upgraded munitions carrying version of the RQ-1 reconnaissance UAV. Under the proposed action, RQ-1 Predators at ISAFAP would be phased out, and all future Predator assignments to units at ISAFAP would be MQ-1s or MQ-9s. The MQ-1 is a medium-altitude endurance UAV that typically operates at an altitude of 10,000 to 15,000 feet, although it can fly as high as 25,000 feet. The MQ-1 Predator is flown by a remote pilot and can carry a payload of about 450 lbs. The MQ-1 is a mid-wing monoplane with a slender fuselage housing the payload and fuel, a high aspect ratio wing, and inverted-V tails. The MQ-1 is powered by a four-cylinder Rotax engine that requires 100-octane aviation gas and can operate in excess of 24 hours without refueling.

The MQ-9 is a larger turboprop-powered Predator with greater performance in speed, altitude, and payload. The turboprop engine operates on jet fuel. The standard MQ-9 typically operates at an altitude of 30,000 to 40,000 feet and can carry 3,000 lb. of payload and 3,000 lb. of fuel. Depending on mission and external stores, the MQ-9 can stay aloft in excess of 24 hours at an altitude of more than 50,000 ft. Munitions being considered for the MQ-9 Predator include the AGM-114 Hellfire II laser-guided air-to-surface missile and other direct-attack munitions currently used on NTTR.

Each MQ-1 and MQ-9 Predator system is composed of three parts: the air vehicle with its associated sensors and communications equipment, the ground control station (GCS), and the product or data dissemination system. One Predator system has four air vehicles with sensors and data links, one GCS, and one Trojan Spirit II Satellite Communications (SATCOM) system.

### **1.3 PURPOSE OF ADDITIONAL PREDATOR BEDDOWN AT ISAFAP**

The purpose of the proposed beddown is to base Predator MQ-1 units and add Predator MQ-9 units with associated support equipment and facilities at ISAFAP. The beddown of additional Predators at ISAFAP permits the use of existing airspace, existing training ranges, and existing facilities already being used by Predator squadrons. In addition, the combination of new personnel with experienced personnel at ISAFAP provides for direct transfer of needed skills in response to the Secretary of the Air Force directive to rapidly field the Predator system. Three alternatives under consideration are described in section 2.1.

### **1.4 NEED FOR ADDITIONAL PREDATOR BEDDOWN AT ISAFAP**

The beddown of the Predator MQ-1 and MQ-9 UAV systems is needed to allow training in tactical and strategic reconnaissance without jeopardizing pilots and crews. The beddown of FDEs, FTUs, and operational squadrons is crucial to respond to the directives and funding from Congress to rapidly have the ability to effectively execute missions. The beddown at ISAFAP

meets the need for command and control through the Air and Space Operations Center. Development, training, and operational Predator squadrons at ISAFAP have the ability to rapidly transition among intelligence collector, targeting, and shooter roles. The trained personnel currently assigned to ISAFAP Predators create a synergistic atmosphere that encourages the rapid transfer of skills to new personnel.

NTTR and other nearby ranges, such as R-2508 north of Edwards AFB, permit full development of the Predator system at ISAFAP. The airspace supports long loiter opportunities and provides extended target area coverage. The MQ-1 and MQ-9 beddown at ISAFAP offers commanders and planners a capability to perform a wide variety of tactical missions augmenting existing Combat Air Forces assets. At ISAFAP, the Predator would evolve as one element of a system of systems, seamlessly integrating other platforms (manned and unmanned) on the ground, in the air, and in space.

## **1.5 REGULATORY FRAMEWORK**

The Air Force's decision regarding the proposed beddown is a federal action subject to requirements of the *National Environmental Policy Act* (NEPA) (42 United States Code 4321 *et seq.*). This Environmental Assessment (EA) has been prepared in accordance with the requirements of the NEPA to analyze the potential environmental consequences associated with the proposed force structure changes. In addition, this document was prepared in accordance with the following:

- Regulations established by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] 1500-1508) for implementing the procedural provisions of NEPA.
- Air Force Instruction (AFI) 32-7061 (The Environmental Impact Analysis Process [EIAP], 32 CFR 989), which implements Section 102 (2) of NEPA.

## **1.6 PUBLIC AND AGENCY INVOLVEMENT**

In February and March 2003, the Air Force initiated the Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) process for the proposed beddown. As part of this process, the Air Force contacted local, state, tribal, and federal agencies to inform them of the Air Force intent to prepare an EA for the proposed force structure changes at ISAFAP. The IICEP mailing list and sample IICEP letters are included in Appendix A. Through this scoping process, the Air Force obtained information regarding pertinent environmental issues agencies and the public felt should be addressed in the environmental impact analysis.

Agency consultations were undertaken with regard to cultural resources to comply with the National Historic Preservation Act (NHPA) and regarding biological resources, primarily for compliance with the Endangered Species Act (ESA).

Preservation of cultural resources falls under the purview of the State Historic Preservation Office (SHPO), as mandated by the NHPA and its implementing regulations (36 CFR 800). Under the law and regulations, federal agencies are generally required to ensure that actions they take do not adversely affect significant cultural resources such as districts, sites, buildings, structures, or objects of national, state, or local significance in American history, architecture,

archaeology, or culture. Thus, federal agencies must determine what resources of significance might be affected by proposed actions. The SHPO reviews and comments on findings and identifies the need for mitigation measures that may be necessary to minimize adverse impacts.

The ESA involves consultation with the Department of the Interior (delegated to the United States Fish and Wildlife Service [USFWS]) in cases where a federal action could affect listed threatened or endangered species, species proposed for listing, or species that could be candidates for listing. The primary focus of this consultation is to request a determination of whether any of these species occur in the region of influence of the proposed action. If any of these species are present, a determination of the potentially adverse effects on the species is made. Should no species protected by the ESA be affected by the proposed action, no additional action is required. State agencies are also responsible for those species listed by the appropriate state.

To facilitate public involvement in this project, the Air Force prepared and issued a Notice of Intent (NOI) to prepare an EA for Predator force structure changes at ISAFAF. The NOI was first published in the Las Vegas Review-Journal on 20 February 2003. A second NOI was published on 21 March 2003.

The Draft EA is available for public review at the Las Vegas Library (Main Branch), the North Las Vegas Library (Main Branch), the Indian Springs Library, and online at [www.cevp.com](http://www.cevp.com) and [www.nellis.af.mil](http://www.nellis.af.mil).



**On 20 February and 21 March 2003, the Air Force issued Notices of Intent to prepare this Environmental Assessment for force structure changes at Indian Springs AFAF.**

## 2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

This chapter describes the proposed action and alternatives for beddown of additional Predators at ISAFAF. The proposed action can be accomplished through implementation of one of three alternatives, Alternative A, Alternative B, or Alternative C; each is described in section 2.1. The No-Action Alternative is described in section 2.2. Alternatives considered but not carried forward are presented in section 2.3. A summary of Permit Requirements is in section 2.4. A comparative summary of environmental consequences is provided in section 2.5.

### 2.1 PROPOSED ACTION AND ALTERNATIVES

The Air Force proposes to beddown additional Predator systems and construct needed Predator support facilities at ISAFAF through one of three alternatives:

*Alternative A:* Alternative A includes the 11 RS, the 15 RS, the 17 RS, a combined (MQ-1/MQ-9) Force Development Evaluation (FDE), and an MQ-1 Field Training Unit (FTU). Facilities would be constructed, personnel would be assigned, and one runway would be extended.

*Alternative B:* Alternative B includes the 11 RS, the 15 RS, the 17 RS, a combined (MQ-1/MQ-9) Force Development Evaluation (FDE), an MQ-1 Field Training Unit (FTU), and a separate MQ-9 FTU. The same facilities would be constructed as in Alternative A, additional personnel would be assigned for the MQ-9 FTU, and one runway would be extended.

*Alternative C:* Alternative C includes the 17 RS, an FDE with MQ-1 and MQ-9 assets, and an FTU with MQ-1 and MQ-9 assets. Limited facilities construction and remodeling would occur, ISAFAF personnel would be reduced, and one runway would be extended.

The existing (No Action) and proposed mix of Predator UAVs at ISAFAF under each alternative are presented in Table 2-1. Facility requirements are presented in section 2.1.4.

**Table 2-1. Mix of Predator UAVs at ISAFAF under Three Alternatives**

| <i>Unit</i>  | <i>Alternative A</i> | <i>Alternative B</i> | <i>Alternative C</i> | <i>Existing Condition</i>      |
|--|----------------------|----------------------|----------------------|--------------------------------|
| 11 <sup>th</sup> Reconnaissance Squadron (RS) (existing)   | 20 MQ-1              | 20 MQ-1              |                      | 20 RQ-1                        |
| 15 <sup>th</sup> Reconnaissance Squadron (RS) (existing)   | 20 MQ-1              | 20 MQ-1              |                      | 20 RQ-1                        |
| 17 <sup>th</sup> Reconnaissance Squadron (RS)  | 12 MQ-1<br>4 MQ-9    | 12 MQ-1<br>4 MQ-9    | 12 MQ-1<br>4 MQ-9    | No full-time assigned aircraft |
| Combined Force Development Evaluation (FDE)  | 4 MQ-1<br>4 MQ-9     | 4 MQ-1<br>4 MQ-9     | 4 MQ-1<br>4 MQ-9     |                                |
| MQ-1 Field Training Unit (FTU)   | 12 MQ-1              | 12 MQ-1              |                      |                                |
| MQ-9 Field Training Unit (FTU)   |                      | 12 MQ-9              |                      |                                |
| Combined Field Training Unit (FTU)   |                      |                      | 12 MQ-1<br>12 MQ-9   |                                |
| Total Predator Aircraft  | 76                   | 88                   | 48                   | 40                             |
| <i>Notes:</i> Under the Existing Condition, the FDE and FTU are embedded within the 11 RS and 15 RS.<br>Under the Existing Condition, RQ-1s are being upgraded to MQ-1s. |                      |                      |                      |                                |

### 2.1.1 Predator System Description

The basic Predator system for either the MQ-1 or the MQ-9 consists of four aircraft with sensors, required communications bandwidth and equipment, and a flight control station as depicted in Figure 2-1.

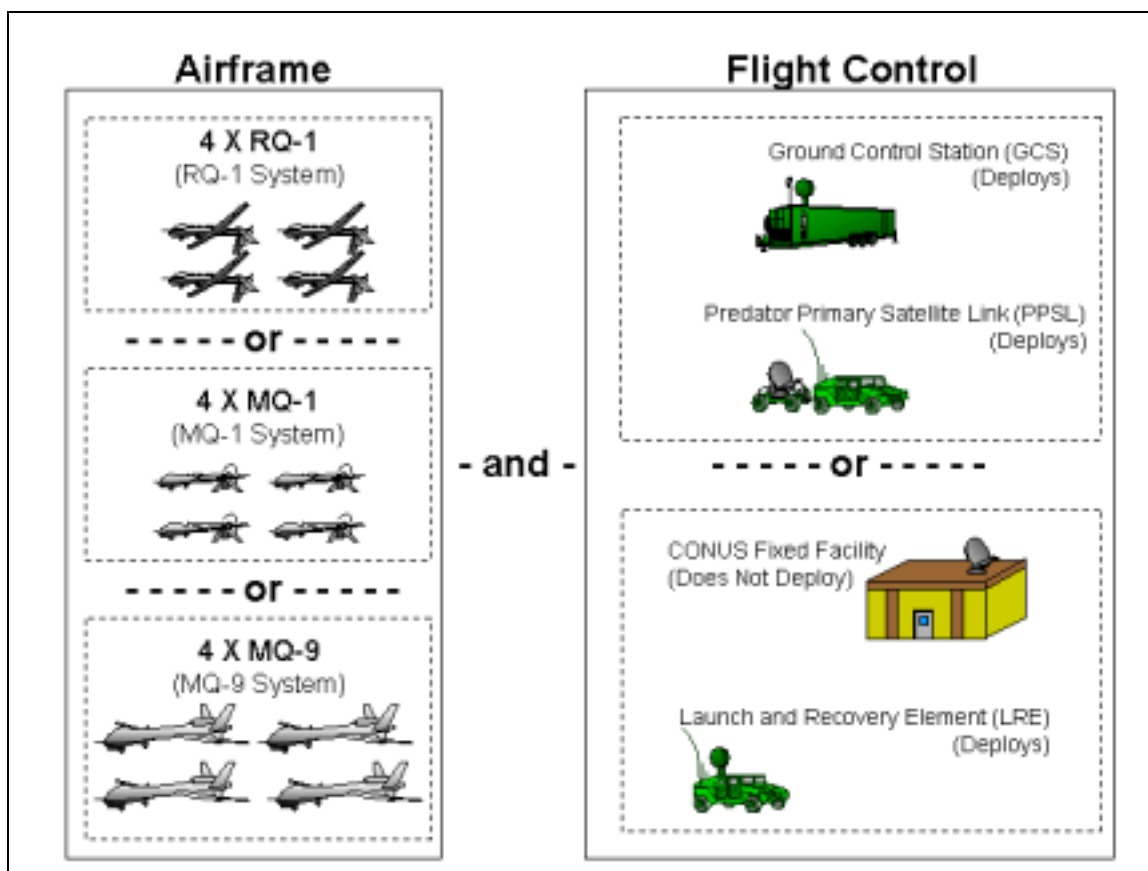
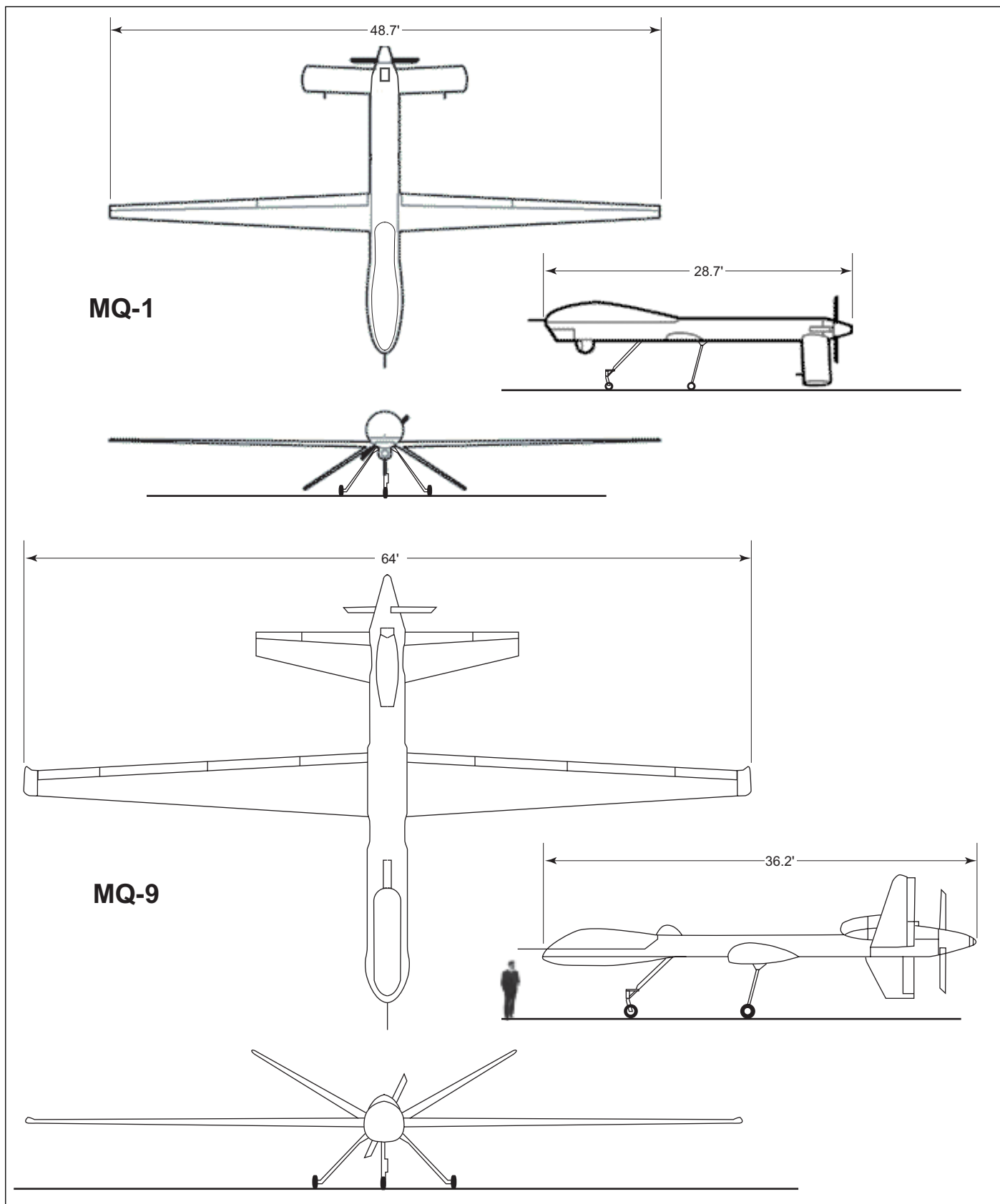


Figure 2-1. Predator System Components

The Predator MQ-1 and MQ-9 are remotely piloted endurance vehicles capable of operation by either line of sight via a direct data link, or beyond line of sight via satellite link. The basic crew operating a Predator consists of a pilot and two sensor operators either inside the Fixed Facility or inside the Ground Control Station trailer. The crew communicates with the Predator using a C-Band line-of-sight data link or a Ku-Band satellite data link for beyond line-of sight flight. If the satellite data link is lost, the Predator is programmed to fly to a safe altitude or location where line-of-sight communication can be re-established. The Predator has communications gear (VHF/UHF/FM radio and multi-mode IFF/SIF), sensors, and wing mounted hardpoints. Each aircraft is designed with multiple mission capabilities and can be equipped with modular payload sensors, external weapons, and sensors to permit tailored missions.

**MQ-1 Predator.** The MQ-1 airframe is an upgraded RQ-1. The 2,100-lb gross vehicle weight MQ-1 (depicted in Figure 2-2) employs the Multi-spectral Targeting System as its primary payload sensor. The payload contains electro-optic and long-wave infrared sensors, laser range finder, laser target marker, laser target designator, and internal radar with 0.3-meter resolution.



**Figure 2-2. Predator MQ-1 and MQ-9**

The MQ-1 can operate up to 25,000 feet in altitude and is capable of carrying and employing two external air-to-ground AGM-114 Hellfire missiles or Stinger air-to-air missiles. The MQ-1's size, composite materials, and small signature increase survivability by complicating adversary acquisition and targeting in a threat environment.

**MQ-9 Predator.** The MQ-9 is a remotely operated single-engine turboprop aircraft offering speed, altitude, and payload advantages over the MQ-1. As depicted in Figure 2-2, the MQ-9 is a larger UAV with up to 10,000 lbs gross weight. The feature distinguishing the two aircraft from a distance is the MQ-9's vertical V-tails as compared with the MQ-1 inverted V-tails. The MQ-9 is capable of altitudes in excess of 50,000 feet and, depending on payload, endurance over 24 hours. Current payload is in excess of 1,500 lbs on six wing and fuselage stations. The MQ-9's increased payload capacity and larger size make it suited for sustained loiter at higher altitudes.

**Predator Operations and Control.** Predator RQ-1, MQ-1, and MQ-9 control can be performed by the stationary Ground Control Station (GCS) or by the fixed facility main operating base (MOB) in the Continental United States (CONUS). Launch and recovery can be performed by the Predator primary satellite link or the Launch and Recovery Element (LRE). All Airframe and Control systems are depicted in Figure 2-1.

The deployable GCS is the operations center for the aircraft and contains payload sensors, laser designator, weapons employment, and information dissemination. The GCS contains common flight control software required for operation of all MQ-1 and MQ-9 aircraft configurations. The GCS is capable of basic data processing and evaluation including automatic target recognition. This allows the mission crew to independently perform identification, surveillance, and destruction of a target as required by mission tasking. At ISAF AF, the GCS functions can all be performed from the Fixed Facility. ISAF AF currently has 10 GCSs to support its RQ-1 Predator Squadrons. Under Alternative A, seven GCSs would be added. Under Alternative B, 10 GCSs would be added. Under Alternative C, the number of GCSs would be reduced to four.

The LRE consists of forward deployed equipment and personnel capable of servicing, arming, and launching/recovering aircraft under line-of-sight control. When deployed, takeoffs and landings would be performed by an LRE, whereas personnel at a different location, such as the CONUS fixed facility MOB, would execute missions. After launch, Predator control of an airborne aircraft is handed over to a remote operations center, such as the CONUS MOB, and Predator control is returned to the LRE when the aircraft has returned for landing. At ISAF AF, the LRE function can also be performed at the Fixed Facility. ISAF AF currently has 10 GCSs and six LREs to support its RQ-1 Predator Squadrons. Under Alternative A, four LREs would be added. Under Alternative B, five LREs would be added. Under Alternative C, the number of LREs would be reduced to three.

### 2.1.2 Airspace Requirements

The Nevada Test and Training Range (NTTR) is a complex consisting of ground and airspace assets for military test and training activities. NTTR airspace includes several Military Operations Areas (MOAs) and restricted airspace areas. The NTTR ground and airspace are presented in Figure 2-3.

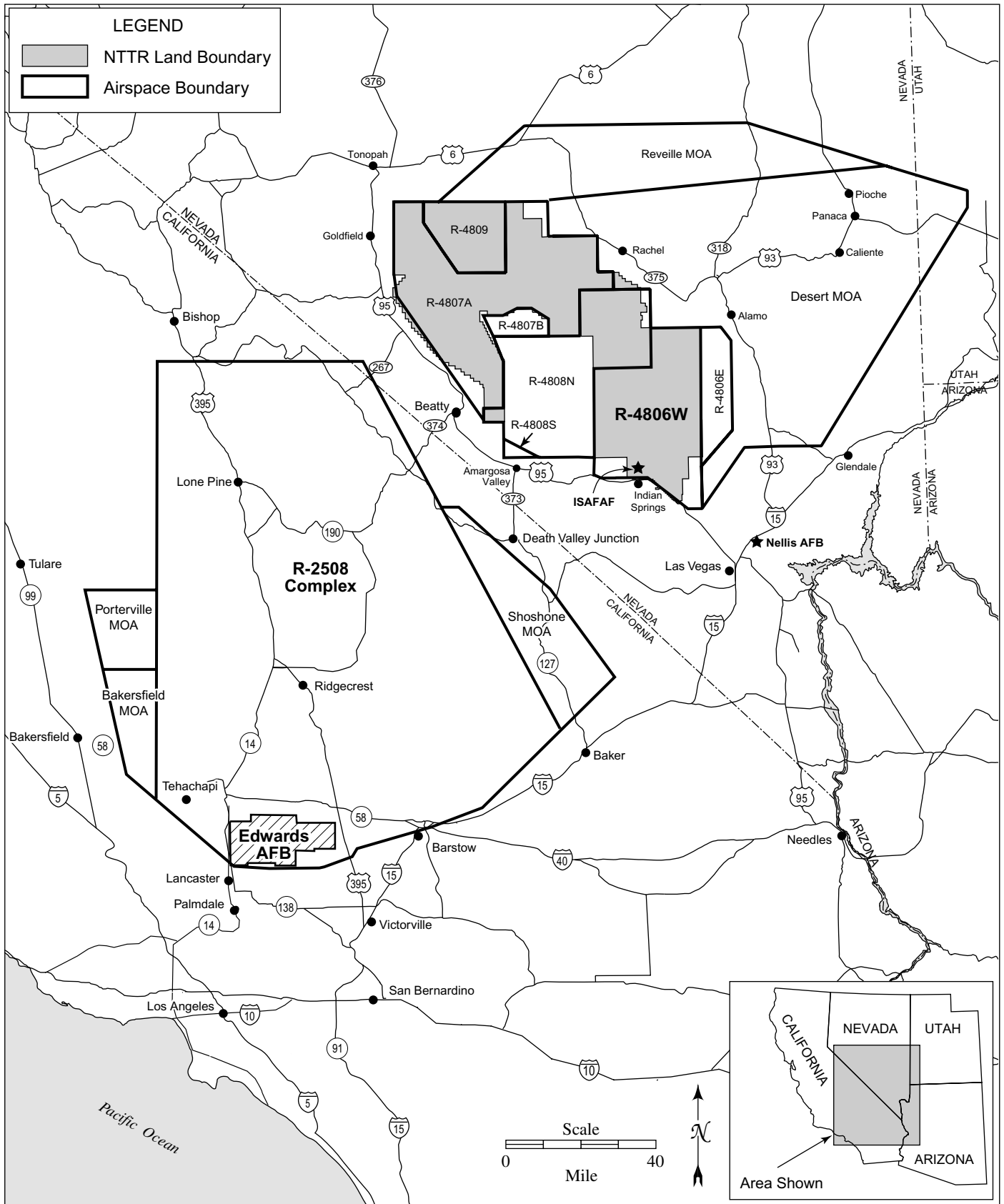


Figure 2-3. Airspace at the Nevada Test and Training Range and the R-2508 Range Complex

ISAFAF lies within the NTTR and, therefore, has easy access to airspace for flight training operations and approved ranges for weapons deployment. Since ISAFAF is home to the 11 RS and 15 RS operating the RQ-1 Predator UAV, range controllers are already familiar with UAV operations. NTTR is cleared for Hellfire operations to 10,000 feet above ground level in designated areas.

Annual training sortie requirements for each alternative and the existing condition are presented in Table 2-2. Under Alternative A or Alternative B, approximately 75 to 80 percent of daytime Predator training sorties would be flown in the NTTR, primarily in R-4806W (see Figure 2-3). Approximately 20 to 25 percent of daytime sorties would be in the R-2508 Range Complex north of Edwards AFB in California (see Figure 2-3). Transit between military airspaces would be in Class A airspace under a Certificate of Authorization (COA) with the Air Route Traffic Control Center (ARTCC).

**Table 2-2. Annual Training Sortie Requirements**

| <i>Location</i>              | <i>Day</i> | <i>Night</i> | <i>Total</i> | <i>Increase from Existing</i> |
|------------------------------|------------|--------------|--------------|-------------------------------|
| <b>ALTERNATIVE A</b>         |            |              |              |                               |
| NTTR (R-4806)                | 2,940      | 48           | 2,988        | 1,908                         |
| R-2508 Range Complex         | 960        | 0            | 960          | 786                           |
| <b>ALTERNATIVE B</b>         |            |              |              |                               |
| NTTR (R-4806)                | 3,660      | 60           | 3,720        | 2,640                         |
| R-2508 Range Complex         | 960        | 0            | 960          | 786                           |
| <b>ALTERNATIVE C</b>         |            |              |              |                               |
| NTTR (R-4806)                | 1,250      | 50           | 1,300        | 220                           |
| R-2508 Range Complex         | 210        | 0            | 210          | 36                            |
| <b>NO-ACTION ALTERNATIVE</b> |            |              |              |                               |
| NTTR (R-4806)                | 1046       | 34           | 1,080        | 0                             |
| R-2508 Range Complex         | 174        | 0            | 174          | 0                             |
| <b>EXISTING CONDITION</b>    |            |              |              |                               |
| NTTR (R-4806)                | 1046       | 34           | 1,080        | 0                             |
| R-2508 Range Complex         | 174        | 0            | 174          | 0                             |

Night sorties would be flown only at the NTTR and would occur once per month per squadron. Environmental night sorties, which are defined as occurring between 10 PM and 7 AM for noise evaluation purposes, would constitute approximately 1 percent of total Predator sorties under Alternative A or Alternative B. Although Predator sorties can be up to 24 hours, the average sortie is assumed to be 6 hours.

### 2.1.3 Personnel Changes

Predator manpower requirements at ISAFAF would change as mission requirements change. Currently, Predator operations are assigned 984 officers, enlisted, and civilians. The 98 RANW manages ISAFAF and the Nellis South Range Complex. The 98 RANW provides crash fire

rescue services for airfield operations and contracted services for airfield operations, facilities maintenance, logistics, lodging, dining, services, range and vehicle maintenance, range security, communications, TACAN, structural support for the South Range Complex, and Range Control duties.

An increase in personnel assigned to ISAFAF would support expanded mission requirements under Alternative A or Alternative B. The current and proposed Predator and ISAFAF personnel numbers under each alternative are shown in Table 2-3. Under Alternative A, Predator personnel would increase by 101 persons. Under Alternative B, the increase would be 143 persons. The greater increase for Alternative B is due to the additional FTU for the MQ-9. Under Alternative C, personnel would decrease by 560.

**Table 2-3. ISAFAF Proposed Personnel Levels**

| <i>Alternative</i>    | <i>Officer<br/>Predator/Other</i> | <i>Enlisted<br/>Predator/Other</i> | <i>Civilian<br/>Predator/Other</i> | <i>ISAFAF<br/>Total</i> | <i>Change from<br/>Existing</i> |
|-----------------------|-----------------------------------|------------------------------------|------------------------------------|-------------------------|---------------------------------|
| Alternative A         | 227/4                             | 848/127                            | 10/42                              | 1,258                   | 101                             |
| Alternative B         | 251/4                             | 866/127                            | 10/42                              | 1,300                   | 143                             |
| Alternative C         | 120/4                             | 294/127                            | 10/42                              | 597                     | (560)                           |
| No Action Alternative | 187/4                             | 787/127                            | 10/42                              | 1,157                   | 0                               |
| Existing Personnel    | 191                               | 914                                | 52                                 | 1,157                   | 0                               |

#### 2.1.4 Facility Requirements

Specific operational requirements for the proposed beddown would be met through construction of new, expanded, or remodeled facilities. The following descriptions provide facility beddown plans for the three alternatives:

- *Alternatives A or B:* The existing facilities currently used by the 11 RS and 15 RS would be occupied by the FTU and FDE functions, which are currently embedded within the 11 RS and 15 RS. The 17 RS with its assigned assets would also reside in the present facilities. New operations, hangars, communications, and other facilities would be constructed for the 11 RS and 15 RS to meet operational and maintenance requirements. Other facilities, including the East Gate, would be improved. Figure 2-4 presents the location of each project under Alternative A or Alternative B. Proposed construction projects are listed in Table 2-4, except projects 28 and 29. Maintenance projects are designated by "U" (upgrade).
- *Alternative C:* An FTU/FDE MQ-9 Hangar Addition and a Ground Control Station Facility would be constructed for the combined FTU and FDE units, and Visiting Quarters (VQ) would be constructed for the FTU students. Figure 2-5 presents the location of each project under Alternative C. A daily average of 25 persons is anticipated at the VQ. Proposed construction includes projects 1, 2, 11, 17, 27, 28, and 29 listed in Table 2-4.

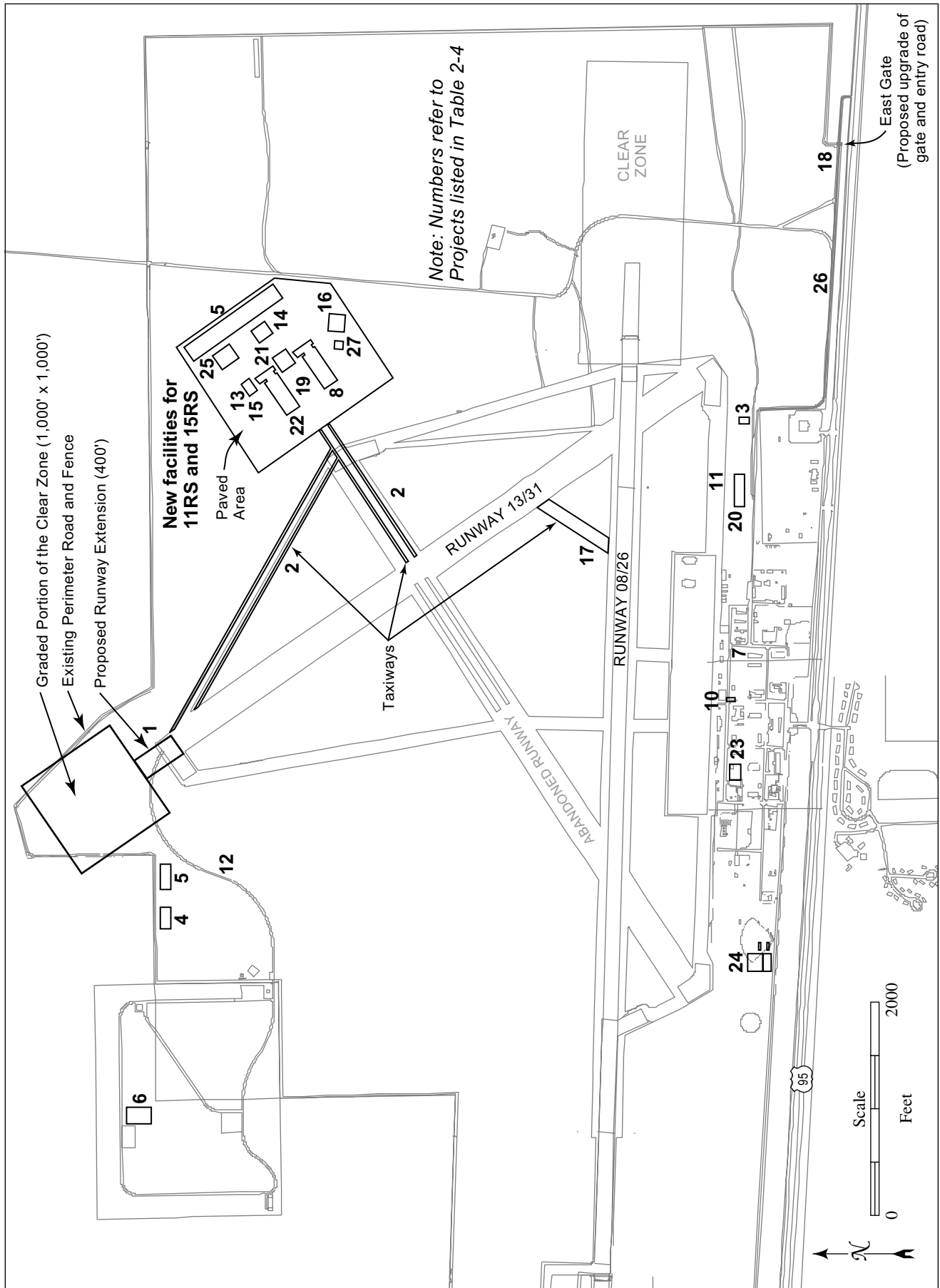


Figure 2-4. Alternative A or Alternative B Proposed Beddown Facilities

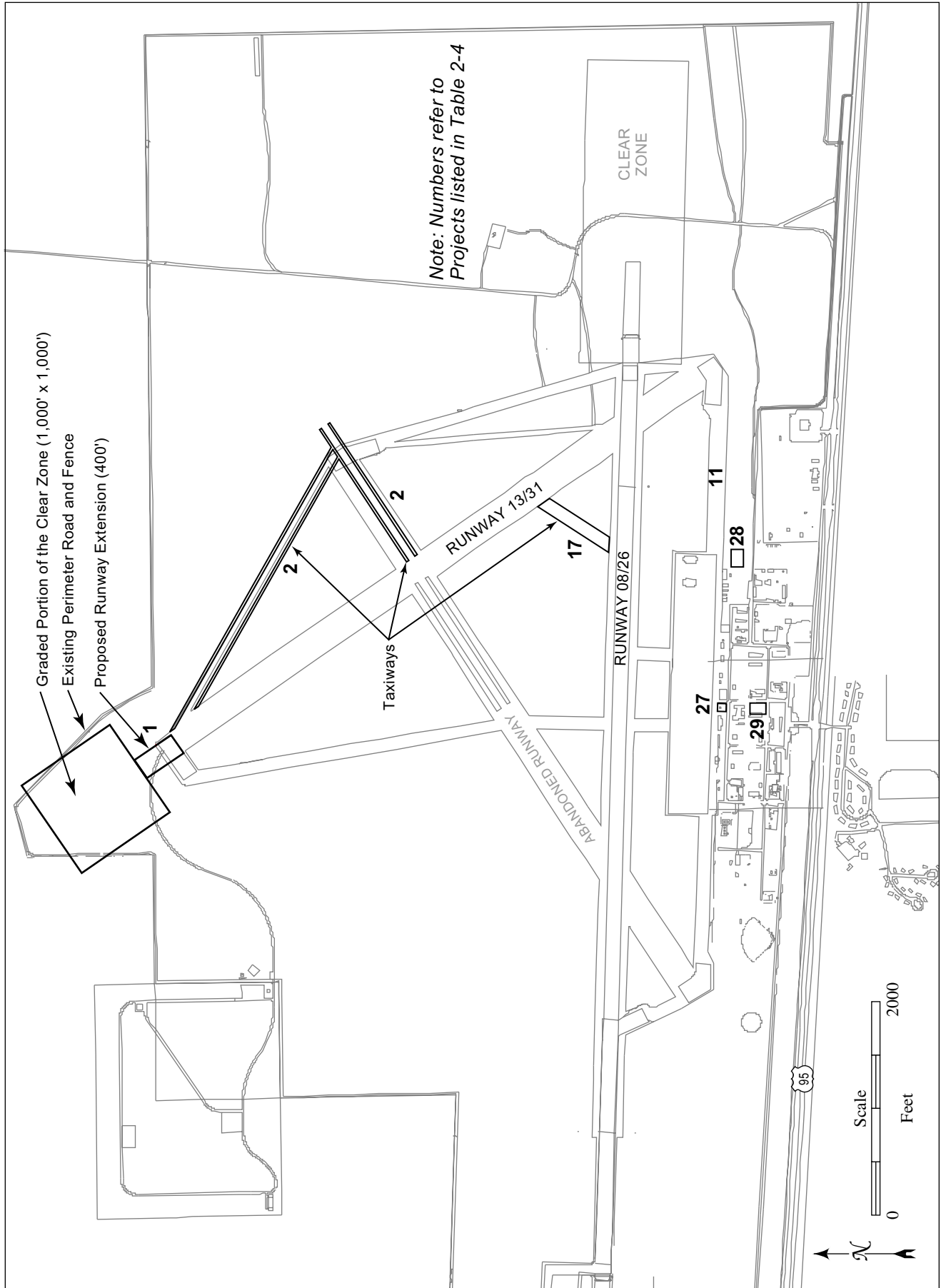


Figure 2-5. Alternative C Proposed Beddown Facilities

Table 2-4. Proposed Predator Construction Projects

| <i>Projects</i> |  | <i>ALTERNATIVES A AND B</i>             |                    | <i>ALTERNATIVE C</i>                    |                    |
|-----------------|--|---|--------------------|---|--------------------|
|                 |  | <i>Area of New Construction (sq ft)</i> | <i>Fiscal Year</i> | <i>Area of New Construction (sq ft)</i> | <i>Fiscal Year</i> |
| 1               | Extension of Runway 13/31                          | 50,000                                  | FY03               | 50,000                                  | FY06               |
| 2               | UAV Taxiway  | 100,000                                 | FY03               | 100,000                                 | FY03               |
| 3               | Aerospace Ground Equipment (AGE) Facility/Yard     | 3,500                                   | FY03               |   |                    |
| U               | Force Protection Upgrade (Repair Boundary Wall)    |   | FY03               |   |                    |
| 4               | Munitions Administration Facility                  | 3,000                                   | FY03               |   |                    |
| 5               | Privately Owned Vehicle (POV) Parking Lot          | 150,000                                 | FY03               |   |                    |
| 6               | Munitions Storage Structure (one at ISAF AF)       | 1,560                                   | FY03               |   |                    |
| 7               | Interim Modular Facilities                         | 20,000                                  | FY03               |   |                    |
| 8               | 11 RS SquadOps/AMU Hangar                          | 69,000                                  | FY04               |   |                    |
| 9               | FY04 Infrastructure (utilities)                    | 48,000                                  | FY04               |   |                    |
| 10              | Fire Department                                    | 3,000                                   | FY04               |   |                    |
| U               | Repair 15 or 11 RS Facility                        |   | FY04               |   | FY04               |
| 11              | Repair Taxiways                                    |   | FY04               |   |                    |
| 12              | Repair MSA Road                                    |   | FY04               |   |                    |
| 13              | Flightline Kitchen                                 | 3,500                                   | FY04               |   |                    |
| 14              | General Purpose Maintenance Shop                   | 24,000                                  | FY05               |   |                    |
| U               | FY05 Infrastructure (Communications)               | 12,000                                  | FY05               |   |                    |
| 15              | AGE Maintenance Facility                           | 14,000                                  | FY05               |   |                    |
| 16              | Fuel Cell Maintenance Hanger                       | 29,000                                  | FY05               |   |                    |
| U               | Repair 15 or 11 RS Facility                        |   | FY05               |   |                    |
| 17              | Construct Taxiway (13/31 to 08/26)                 | 70,000                                  | FY05               | 70,000                                  | FY05               |
| 18              | East Gate Upgrades                                 | 2,000                                   | FY05               |   |                    |
| 19              | Predator SATCOM Pad                                | 25,000                                  | FY05               |   |                    |
| U               | Flightline and Perimeter Fence (repair)            |   | FY05               |   |                    |
| 20              | MQ-9 Hangar (addition to Bldg 718)                 | 20,000                                  | FY05               |   |                    |
| 21              | Phase Maintenance Hangar                           | 20,000                                  | FY06               |   |                    |
| 22              | 15 RS SquadOps/AMU Hangar                          | 69,000                                  | FY06               |   |                    |
| 23              | Dining Hall  | 21,530                                  | FY06               |   |                    |
| 24              | Weapons Load Training/Hangar/Academics/Office      | 20,000                                  | FY06               |   |                    |
| 25              | Parts Store/Casket Storage                         | 32,000                                  | FY06               |   |                    |
| U               | Munitions Storage Structures (three at Nellis AFB) | 7,200                                   | FY06               |   |                    |
| 26              | East Gate Access Road (improve existing road)      |   | FY06               |   |                    |
| U               | FY06 Infrastructure (Communications)               | 12,000                                  | FY06               |   |                    |
| 27              | Ground Control Station Facility                    | 8,000                                   | FY06               | 8,000                                   | FY06               |
| 28              | FTU/FDE Hangar Addition                            |   |                    | 40,000                                  | FY06               |
| 29              | Visiting Quarters (VQ) (UAV TDY FTU students)      |   |                    | 36,000                                  | FY06               |
| U               | Convert Fitness Facility                           |   | FY06               |   |                    |
| U               | Convert Billeting/Recreation Facility              |   | FY06               |   |                    |
| U               | Additional Various Facilities                      |   | FY06               |   |                    |

Sources: ACC 2003; with updates from D. Webb 2003; U = upgrade projects

The square footage of each project and the fiscal year in which development is proposed are presented in Table 2-4. The numbered items on Figures 2-4 and 2-5 correspond to the numbered projects in Table 2-4.

Under Alternatives A, B, and C, Runway 13/31 would be extended to the north by 400 feet. The current overrun pavement will support runway requirements; therefore, the additional pavement will be about 75 feet of runway and about 150 feet of overrun. The graded portion of the clear zone would then extend fewer than 30 feet beyond the present ISAFAF fence. Operations on Runway 13/31 are currently limited to operations to the north only and would be reactivated to operate in both directions. Runway 13/31 would not be used for south launch sorties with onboard munitions.

### **2.1.5 Munitions Storage**

Alternative A or Alternative B construction projects would be located at ISAFAF with the exception of three of the munitions storage structures, which would be constructed at Nellis AFB. A Facilities Site Survey was performed and identified several sites along Perimeter Road at the Nellis AFB munitions storage area that would be suitable for additional munitions storage structures (USAF 2002c).

The three proposed munitions storage structures are earth-covered igloos approximately 80 feet by 30 feet. Storage structures at Nellis AFB are necessary to accommodate the Hellfire missile system for the MQ-1 and potential future munitions requirements associated with the MQ-9. Under Alternative A or Alternative B the MQ-1 and MQ-9 operational systems would be deployed from Nellis AFB with their munitions. All necessary support equipment and personnel are already positioned at Nellis AFB.

Approximately 50 Hellfire air-to-ground missiles per year currently are expended in conjunction with Predator training operations. Under Alternative A or Alternative B, missile expenditure would increase to 140 per year; under Alternative C, Hellfire use would increase to 100 per year. The transport of Hellfire missiles by truck convoy from storage at Nellis AFB to ISAFAF would increase from the current two to three convoys per year to up to eight per year under Alternative A or Alternative B and to four to five per year under Alternative C.

### **2.1.6 Utilities Improvements**

Proposed utilities improvements at ISAFAF under Alternative A or Alternative B include water supply, wastewater treatment, electricity, and communications. The existing water supply system and wastewater collection system would be extended to support the new facilities east of Runway 13/31, as shown on Figure 2-6.

A new 12.47 kV electrical substation would be installed near the East Gate (see Figure 2-6). Nevada Power Company would provide primary service to the new substation, and ISAFAF would provide secondary distribution to the new facilities (USACE 2003).

Communication lines from the existing communication duct bank at manhole MH13 would be extended to the new facilities east of Runway 13/31 (see Figure 2-6). A vault would be installed outside of the new communication room to support the main duct bank. The GCS Facility would require additional conduits to support GCS antennas. A communication closet would be

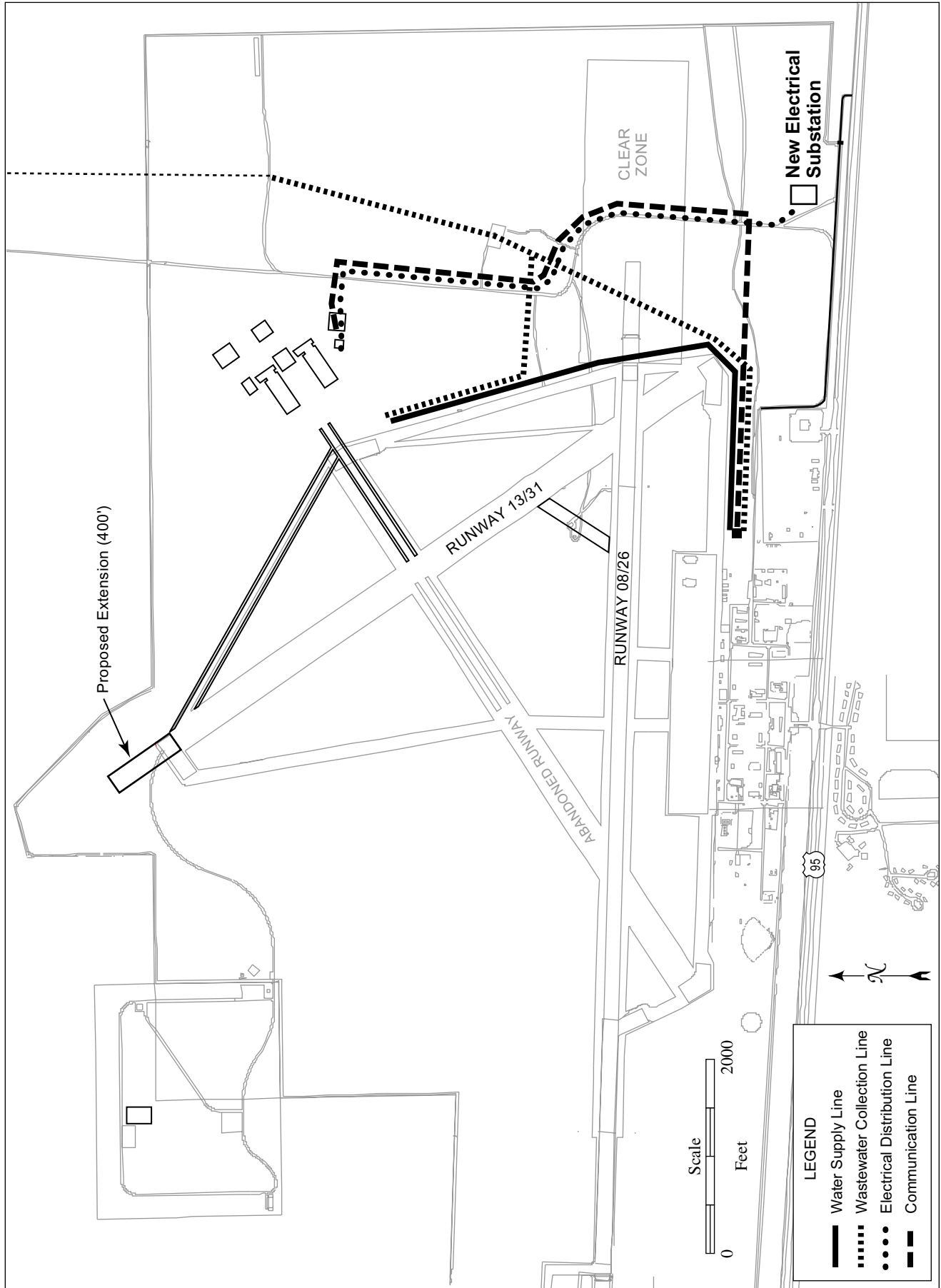


Figure 2-6. Proposed Utilities Improvements at ISAF AF

provided at the flight line end of the hangar for GCS equipment. All new facilities would have individual satellite antennas for CATV requirements. New communication facilities would be designed in accordance with standards delineated in TLA/EIA 568A (USACE 2003).

Alternative C has no new facilities east of Runway 13/31. Utility improvements to support these facilities would not be constructed under Alternative C.

## **2.2 NO-ACTION ALTERNATIVE**

The No-Action Alternative provides a benchmark that enables decisionmakers to compare the environmental effects of Alternatives A, B, or C to continuation of existing conditions. No Action for this EA means no beddown of additional Predator squadrons at ISAFAP at this time. No new beddown personnel changes or construction would occur at ISAFAP, and no new Predator training activities would occur in the airspace. No Action could negatively affect the overall program for weapons evaluation of the MQ-1 and MQ-9 aircraft and delay fielding the MQ-1 and MQ-9 for operations and deployment.

## **2.3 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD**

In compliance with NEPA and Air Force Instructions, the Air Force must consider reasonable alternatives to the proposed action. Only those alternatives determined as reasonably able to fulfill the need for the proposed action warrant detailed analysis. The following presents a summary of alternatives considered but not carried forward in this EA.

### **2.3.1 Beddown at Alternative Locations**

The proposed action is to beddown additional Predator assets at ISAFAP. The Secretary of the Air Force and Congress have instructed the Air Force to rapidly beddown Predator assets. At least five of the 61 Air Force bases with an active flying mission and existing major range and test facility components over land could be considered for Predator operational squadron beddowns. In addition to Nellis AFB (ISAFAP), Nevada; these include Holloman AFB, New Mexico; Edwards AFB, California; Hill AFB, Utah; and Eglin AFB, Florida. These alternative locations were considered but not carried forward for analysis in this EA because the existing Predator squadrons and trained personnel at ISAFAP, when combined with the Nellis AFB mission to evaluate aircraft flight and weapon system capabilities, make ISAFAP the only location where rapid deployment of all of these capabilities can be accomplished. As more UAVs become operational, other bases will likely be identified and separately evaluated for environmental consequences associated with operational squadron beddown decisions.

### **2.3.2 Simulator Training Only**

Many of the flight components and characteristics of the Predator aircraft can be, and are, simulated for training purposes. Simulator training enhances the skills of mission personnel involved in Predator operation. To be effective, simulator training must be integrated with actual operations, full system testing, mission capabilities, and weapons system evaluation. Operational and maintenance activities require real aircraft to equip personnel to face real world challenges. Simulator training only is not adequate to train for combat conditions faced in operating and maintaining Predator UAVs.

## 2.4 PERMIT REQUIREMENTS

This EA has been prepared in compliance with NEPA; other federal statutes, such as the Clean Air Act and the Clean Water Act; Executive Orders; and applicable state statutes and regulations. In addition, various federal, state, and local permits are required for certain construction and operational activities.

In accordance with the Nevada Administrative Code (Chapter 445A), a General Stormwater Permit for Construction from the Nevada Division of Environmental Protection, Bureau of Water Pollution Control is required for construction activities greater than 5 acres. In addition, a modification to the ISAFAP Stormwater General Discharge Permit would be required.

An Authority to Construct Permit from the Clark County Department of Air Quality Management would be required for facilities with boiler burners greater than 2 million BTU. Preliminary design for the Squad Operations and AMU hangar, the largest facility, indicates the burners would be slightly less than 1 million BTUs, therefore, this permit may not be required. As the design develops, and other facilities are designed, the facility requirements would be continually reviewed for changes that would require the necessary permits. Also, a Clark County Dust Control Permit would be required for all projects greater than 0.25 acre and any trenching greater than 100 linear feet.

In addition, the existing ISAFAP NPDES stormwater, NPDES wastewater, and the non-discharge (sludge disposal) permits will require modification due to the new construction.

## 2.5 COMPARATIVE SUMMARY OF ENVIRONMENTAL CONSEQUENCES

This EA provides an analysis of the potential environmental consequences associated with the additional Predator beddown at ISAFAP. As indicated in Chapter 4.0, the proposed beddown would not result in significant impacts for any environmental resource. A comparative summary of the potential environmental consequences of the beddown alternatives and the No-Action Alternative is presented in Table 2-5.

Table 2-5. Comparison of Alternatives by Environmental Resource

| <i>Environmental Resource</i> | <i>Alternative A</i>   | <i>Alternative B</i>   | <i>Alternative C</i>  | <i>No Action</i>  |
|-------------------------------|--|--|---|---|
| Airspace Management and Use   | NTTR: Increase of 7.5 Predator sorties per day or 45 flight hours<br>R-2508: Increase of 3.1 Predator sorties per day or 15 flight hours; sorties scheduled with airspace managers   | NTTR: Increase of 10.5 Predator sorties per day or 63 flight hours<br>R-2508: Increase of 3.1 Predator sorties per day or 15 flight hours; sorties scheduled with airspace managers  | NTTR: Increase of 0.7 Predator sorties per day or 4 flight hours<br>R-2508: Increase of 0.1 Predator sorties per day or 1 flight hour; sorties scheduled with airspace managers   | NTTR: Currently 4.2 Predator sorties per day or 25 flight hours<br>R-2508: currently 0.7 Predator sorties per day or 4 flight hours; sorties scheduled with airspace managers |
| Safety                        | Class A mishap with no loss of life once every 1.2 months projected to improve as system matures; improved munitions storage for Hellfire increase from 50 to 140 per year; Hellfire shipments from Nellis AFB to ISAFAP to increase by up to five annually; runway extension and gate improvements benefit safety | Class A mishap with no loss of life once every 1.1 months projected to improve as system matures; improved munitions storage for Hellfire increase from 50 to 140 per year; Hellfire shipments from Nellis AFB to ISAFAP to increase by up to five annually; runway extension and gate improvements benefit safety | Class A mishap with no loss of life once every 3.2 months projected to improve as system matures; Hellfire increase from 50 to 100 per year; Hellfire shipments from Nellis AFB to ISAFAP to increase by up to three annually; runway extension improves safety; no gate improvements | Class A mishap with no loss of life once every 3.9 months projected to improve as system matures; two to three current Hellfire shipments                                     |
| Noise                         | Increase less than 1 dB; no discernible change   | Increase less than 1 dB; no discernible change   | Increase less than 1 dB; no discernible change  | No change from ISAFAP airfield operations   |
| Air Quality                   | Total project operational emissions in tpy: CO: 127.2; SO <sub>2</sub> : 2.4; NO <sub>x</sub> : 38.2; PM <sub>10</sub> : 2.8; VOC: 6.9; construction PM <sub>10</sub> approximately 61 tpy for 4 years; no long-term impacts   | Total project operational emissions in tpy: CO: 141.5; SO <sub>2</sub> : 3.2; NO <sub>x</sub> : 49.5; PM <sub>10</sub> : 3.7; VOC: 9.3; construction PM <sub>10</sub> approximately 61 tpy for 4 years; no long-term impacts   | Total project operational emissions in tpy: CO: -105.5; SO <sub>2</sub> : 0.3; NO <sub>x</sub> : -4.9; PM <sub>10</sub> : -0.3; VOC: -12.3; construction PM <sub>10</sub> approximately 29 tpy for 3 years; no long-term impacts  | Total current ISAFAP emissions in tpy: CO: 0.38; SO <sub>2</sub> : 1.0; NO <sub>x</sub> : 1.8; PM <sub>10</sub> : 13.5; VOC: 9.3  |

Table 2-5. Comparison of Alternatives by Environmental Resource

| <i>Environmental Resource</i> | <i>Alternative A</i>   | <i>Alternative B</i>  | <i>Alternative C</i>   | <i>No Action</i>   |
|-------------------------------|--|---|--|--|
| Water and Soils               | Additional 8.6 AFY increase from 98.6 AFY currently used, which is within allocated water resources from state; infrastructure improvements to reduce soil erosion | Additional 12.2 AFY increase from 98.6 AFY currently used, which is within allocated water resources from state; infrastructure improvements to reduce soil erosion | Reduction of 47.7 AFY decrease from 98.6 AFY currently used, which is within allocated water resources from state; fewer infrastructure improvements; less area disturbed  | Currently use 98.6 AFY, which is within available water allocation from the State; existing disturbed soils    |
| Biological Resources          | Procedures to avoid consequences to desert tortoise and burrowing owl incorporated into construction planning at Nellis AFB and ISAFAF                             | Procedures to avoid consequences to desert tortoise and burrowing owl incorporated into construction planning at Nellis AFB and ISAFAF                              | Procedures to avoid consequences to desert tortoise and burrowing owl incorporated into construction planning at ISAFAF; no construction at Nellis AFB; Alt. C disturbs one-half area of Alt. A or Alt B at ISAFAF | Procedures to avoid consequences to desert tortoise and burrowing owl in place                                 |
| Cultural Resources            | No significant archaeological, historical, or traditional resources recorded within area proposed for construction   | No significant archaeological, historical, or traditional resources recorded within area proposed for construction  | No significant archaeological, historical, or traditional resources recorded within area proposed for construction   | Thirteen archaeology sites recorded at ISAFAF; all determined not eligible for inclusion in National Register. |
| Visual Resources              | Construction in an open area on ISAFAF noticeable from Hwy 95; consistent with a military base   | Construction in an open area on ISAFAF noticeable from Hwy 95; consistent with a military base  | All visible construction within cantonment area; no discernible effects  | ISAFAF is a small base completely visible from Highway 95  |

**Table 2-5. Comparison of Alternatives by Environmental Resource**

| <i>Environmental Resource</i> | <i>Alternative A</i>  | <i>Alternative B</i>  | <i>Alternative C</i>   | <i>No Action</i>  |
|-------------------------------|---|---|--|---|
| Land Use                      | New construction northeast of cantonment area consistent with ISAFAF planning policies, and guidelines; no expected incompatibilities with DNWR | New construction northeast of cantonment area consistent with ISAFAF planning policies, and guidelines; no expected incompatibilities with DNWR | All new construction in cantonment area consistent with ISAFAF planning policies and guidelines; no expected incompatibilities with DNWR | ISAFAF encompasses 2,830 acres of which 1,920 acres is designated open space, 227 acres are airfield, and the remainder is primarily base structures and paved areas                          |
| Socioeconomics                | Peak year direct and indirect employment increase by 765 jobs; slightly positive but nearly indiscernible in dynamic Las Vegas area             | Peak year direct and indirect employment increase by 859 jobs; slightly positive but nearly indiscernible in dynamic Las Vegas area             | Peak year direct and indirect employment decrease by 560 jobs; slightly negative but nearly indiscernible in Las Vegas area              | Workforce of 1,105 active duty military and 52 civilian contractors nearly all reside in the 1.5 million-population Las Vegas area  |
| Environmental Justice         | No effects expected in Indian Springs or Las Vegas area   | No effects expected in Indian Springs or Las Vegas area   | No effects expected in Indian Springs or Las Vegas area  | Las Vegas area has an approximately 40.0 percent minority population with 10.8 percent of the total population below the poverty level  |
| Infrastructure                | Fire protection, communication, utilities, and electrical system improvements would benefit infrastructure                                      | Fire protection, communication, utilities, and electrical system improvements would benefit infrastructure                                      | No change  | Fire protection adequate for airfield; needs improvements for cantonment area; police, communication, and utilities adequate; storm drainage and electrical considered inadequate or degraded |

**Table 2-5. Comparison of Alternatives by Environmental Resource**

| <i>Environmental Resource</i>            | <i>Alternative A</i>  | <i>Alternative B</i>  | <i>Alternative C</i>  | <i>No Action</i>   |
|--|---|---|---|--|
| Transportation                           | Increase of peak hour traffic by 8.7 percent not expected to affect level of service; improvements to East Gate to benefit traffic flow   | Increase of peak hour traffic by 12.3 percent not expected to affect level of service; improvements to East Gate to benefit traffic flow  | Decrease of peak hour traffic by 50 percent not expected to affect level of service; no change to East Gate   | Peak traffic volume is 337 vehicles per hour. Level of service considered good       |
| Hazardous Materials and Waste Management | Existing 90-day hazardous waste Central Accumulation Site could accommodate increased hazardous materials use and waste generation; construction of northeast parking lot partially over LF-02 could be done under an ERP waiver and is not expected to impair parking lot use or landfill monitoring | Existing 90-day hazardous waste Central Accumulation Site could accommodate increased hazardous materials use and waste generation; construction of northeast parking lot partially over LF-02 could be done under an ERP waiver and is not expected to impair parking lot use or landfill monitoring | Existing 90-day hazardous waste Central Accumulation Site could accommodate hazardous materials use and waste generation; no parking lot near LF-02 | Hazardous waste disposed through Defense Reutilization and Marketing Office contract |